

A new record of the family Amaurobiidae (Arachnida : Araneae) from India¹

B. H. PATEL² AND H. K. PATEL³
(With a text-figure)

Occurrence of the spider belonging to the family Amaurobiidae with a new species of genus *Amaurobius* Koch is recorded for the first time from India and described in this paper.

INTRODUCTION

In the course of a study of the taxonomy of spiders from different parts of Gujarat during the years 1967-1971 one of us (BHP) came across a spider belonging to the family Amaurobiidae.

In this paper we have recorded and described a new species of the genus *Amaurobius* Koch of the family Amaurobiidae. We have included herein the characters of the family and the genus also for easy identification of the Indian forms, as the family and genus are new records for India.

The type specimen will in due course be deposited in the National Collections of the Zoological Survey of India, Calcutta.

Family AMAUROBIIDAE

Characters: Six or eight eyes; eyes if eight, in two transverse rows, all eyes pale in colour. Chelicerae robust, geniculate at the base anteriorly, bearing scopula. Labium notched basally. Legs moderately to heavily spined, rarely lacking spines. Trichobothria in one or two rows on tibiae, absent on femora. Thoracic groove longitudinal, when present. Cribellum and calamistrum present, usually cribellum divided into two

¹ Accepted November 1972.

² Department of Biology, V. P. Mahavidyalaya, Vallabh Vidyanagar (W. Rly.), Gujarat (India).

³ Department of Entomology, Institute of Agriculture, Anand (W. Rly.), Gujarat (India).

parts, calamistrum reduced or absent in males of some species. Male with median apophysis in palpal organ. Tarsi possess three claws, without claw tufts or scopulae.

Spiders of average size which resemble in a striking way, members of the family Agelenidae. They differ from the Agelenidae in having a cribellum and a calamistrum. They are distinguished from Dictynidae in having all eyes pale in colour, in the structure of genital organ and the legs with strong spines; in dictynids, only in few cases are the true spines present.

The spiders of this family construct irregular webs consisting of a frame work of plane threads supporting an irregular net-work of the hackled band. Some times the supporting threads radiate from the opening of a retreat with a certain degree of symmetry, giving the web a somewhat regular appearance. Due to the coarser nature of the structure of hackled band, it is easily seen in the webs of *Amaurobius* then in the webs of other genera.

Genus *Amaurobius* Koch

Amaurobius Koch, 1837. *Ueb. Ar. Syst.*, 1:15.

Ciniflo: Blackwall, 1841. *Trans. Linn. Soc. London (Zool.)*, 18:607.

Amauribus: Thorell, 1869. *Niva. Acta R. Soc. Scient. Upsal.*, 3:124.

Amaurobius: Simon, 1892. *Hist. Nat. des Araignees*, 1:237.

Walmus: Chamberlin, 1947. *Ann. Ent. Soc. Am.*, 40:10.

Amaurobius: Locket & Millidge, 1953. *British Spiders*, 2:17.

Amaurobius: Leech, 1972. *Ent. Soc. Canada, Memoir* 84:70.

Characters: Cephalic region broad and rounded in front. Eyes not very different in size, all pale in colour; anterior row straight or very slightly procurved, posterior row straight or recurved. Sternum not prolonged between the posterior coxae. Labium notched at the base, longer than broad, reaching beyond the mid-point of maxillae. Chelicerae strongly convex at the base, geniculate and robust; fang groove with three or four retromarginal and two or three promarginal teeth, promargin also with scopula. Cribellum divided into two parts. Femora with well developed dorsal spines. Epigyne various, from large median and small lateral lobes to small median and large lateral lobes. Male with three tibial processes. Embulus short, curved and ends at the most distal part of alveolus.

Amaurobius nathabhahi sp. nov. (Fig. 1; a-c)

General: Body brown to light-brown. Total length 6.00 mm. Carapace 2.72 mm long, 2.36 mm wide; abdomen 3.80 mm long, 3.00 mm wide.

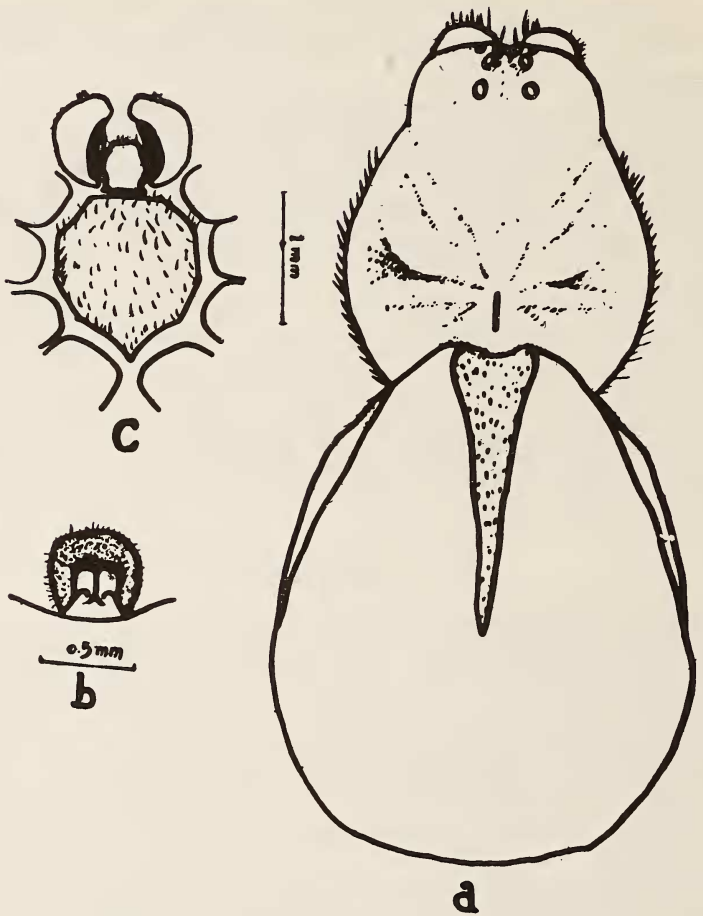


Fig. 1. *Amaurobius nathabhahi* sp. nov.

a. Dorsal view of female, legs omitted; b. Epigyne; c. Sternum, labium and maxillae.

Cephalothorax: Brown, slightly longer than wide, cephalic region broad and high anteriorly, separated by a groove, thorax with a fovea. Ocular quad longer than wide, narrower in front. Eyes pale in colour; eyes of posterior row larger than the eyes of anterior row; anterior row very slightly procurved as seen from the front, posterior row strongly recurved; anterior median eyes slightly larger than the anterior laterals and little nearer to the laterals than to each other, posterior laterals slightly larger than the posterior medians. Clypeus very narrow. Chelicerae reddish-brown, convex at the base and with scopulae at the anterior end, fang groove provided with three retromarginal and two promarginal teeth. Sternum heart-shaped, clothed with hairs, pointed behind, not projecting between the posterior coxae. Labium longer

than broad, notched at the base and reaching beyond the mid-point of maxillae. Sternum, labium and maxillae as in Fig. 1, c. Legs long, brown, with dark brown bands and covered with hairs and thick spines.

Abdomen: Light-brown with yellow patches in the background on the dorsal side, oblong, broader posteriorly, overlapping the posterior region of cephalothorax in front. Ventral side lighter in colour. A mid-dorsal brown wedge-shaped stripe, starts from the anterior end of abdomen and extends upto one half length posteriorly as in Fig. 1, a. Dorsum covered with fine hairs. Epigyne as in Fig. 1, b.

Holotype: One female in spirit.

Type-locality: Vallabh Vidyanagar, c 6 kilometres west of Anand, Dist. Kaira, 10-ix-1967. Coll. B. H. Patel.

Distribution: Known from the type-locality only.

This species resembles to *Amaurobius koreanus* Paik, but differs as follows: (i) Anterior row of eyes very slightly procurved, posterior row strongly recurved and anterior laterals smallest but in *A. koreanus* anterior row of eyes procurved, posterior row nearly straight and anterior laterals largest. (ii) Chelicerae reddish-brown, with three retromarginal and two promarginal teeth but in *A. koreanus* chelicerae reddish-black, with four retromarginal and five promarginal teeth. (iii) Legs banded with dark-brown bands but in *A. koreanus* no such bands on legs. (iv) Abdomen oblong, broader posteriorly, light-brown with irregular yellowish patches in the background and a mid-dorsal wedge-shaped stripe on dorsal side but in *A. koreanus* abdomen oval, brownish-black in background, a pair of pale longitudinal stripes on dorsal side and dorsum with yellowish-brown chevrons. (v) Structure of epigyne also differs.

ACKNOWLEDGEMENTS

Our sincere thanks are due to Dr. B. K. Tikader, Deputy Director, Zoological Survey of India, Western Regional Station, Poona 5, for the confirmation of the specimen and valuable suggestions. We are also thankful to the Chairman, Dr. H. M. Patel (I.C.S. Retd.) and Secretary Shri C. D. Desai of Charutar Vidyamandal and Ex-Principal Shri J. G. Chohan, Vithalbai Patel Mahavidyalaya, Vallabh Vidyanagar for the inspiration and facilities provided to carry out the work.